

Figure 1

A. Rig open reading frame nucleotide sequence

atgccggaacagagtaacgattaccgcgtggtggtgttcggggcggcggtgggcaag
agctcgctggtgctgcgcttcgtgaagggcacgttcgcgacacctacatccccaccatc
gaggacacctaccggcaggtgatcagctcgacaaagagcgtGtgacgctgcagatcaca
gacaccacggcagccaccagttcccggccatgcagcgctgtccatctccaagggccac
gccttcctggtgttctccgtcaccagcaagcagtcgctggaggagctggggcccatc
tacaagctcatcgtgcagatcaagggcagcgtggaggacatccccgtgatgctcgtgggc
aacaagtgcgatgagacgcagcgggaggtggacacgcgcgagcgagcggtggccag
gagtggaaagtgcgcttcatggagacctcggccaagatgaactacaacgtcaaggagctc
ttccaggagctgctgacgctggagacgcgcgggaacatgagcctcaacatcgacggcaag
cgctccgggaagcagaagagagacagaccgcgtcaagggcaaatgcaccctcatgtga

B. Rig amino acid sequence

MPEQSNDYRVVFGAGGVGKSSLVLRVKGTRDITYPTIEDTYRQVISCD
KSVCTLQITD TTGSHQFPAMQRLSISKGHAFILVFSVTSKQSL EEL GPIYKLIV
QIKGSVEDIPVMLVGNKCDETQREVD TREAQAV AQEWKCAF METSAKMN
YNVKELFQELLTLETRRNMSLNIDGKRSGKQKR TDRVKGKCTLM

Figure 2

Rig	mpeqsndyrvvvf-----	13
Noey2	mgnsfsgskeqkllkrlrllpallilrafkphrkirdyrvvv-	43
RalA	maankpkgqnsalahlkvimv-----	20
Rap1A	mreyklvvl-----	9
Rap2A	mreykvvl-----	9
HRas	mteyklvv-----	9
RRas	mssgaasgtgrgrprgggpgpgdpppsethklvv-----	35
Rheb	mpqsksrkiaail-----	12
Rig	GAGGVGKSS lvlrfvkgtfrdtYIPTIEDTYrqviscdksvctl	57
Noey2	GTAGVGKST llhkwasgnfrheYLP TI ENTYcqllgcshgvlsl	87
RalA	GSGGVGKSA ltlqfmydefvedYEPTKADSyrkkvldgeevqi	64
Rap1A	GSGGVGKSA ltvqfvqgifvekYDPTIEDSYrkqvevdcqqcml	53
Rap2A	GSGGVGKSA ltvqfvgtgtfiekYDPTIEDFYrkeievdsspsvl	53
HRas	GAGGVGKSA ltiqliqnfhvdeYDPTIEDSYrkqvvidgetcll	53
RRas	GSGGVGKSA ltiqfiqsyfvsdYDPTIEDSYtkicsvdgiparl	79
Rheb	GYRSVGKSS ltiqfvegqfvdsYDPTIENTFtklitvngqeyhl	56
Rig	qitDTTGS HQ fpmqrslsiskghafilvsvtskqsleelgpiy	101
Noey2	hitDSKSGDGNralqrhviarghafvlvsvtkketleelkafy	131
RalA	dilDTAGQEDYaairdnyfrsgegflcvfsitemesfaatadfr	108
Rap1A	eilDTAGTEQftamrdlymkngqgfalvysitaqstfndlqdlr	97
Rap2A	eilDTAGTEQfasmrlyikngqgfilyvslvnqqsfdikpmr	97
HRas	dilDTAGQEEysamrdqymrtgegflcvfainntksfedihqyr	97
RRas	dilDTAGQEEfgamreqymraghgflvfaindrqsfnegklf	123
Rheb	qlvDTAGQDEysifpqtysidingyilvsvtsiksfevikvih	100
Rig	klivqikgsvedipmvlv-----NKCDetqrevdtreaqav	138
Noey2	elickikgnnlhkfpivlv-----NKSDdthrevalndgatc	169
RalA	eqilrvkedenvpflv-----NKSDledkrqvsveeakn	144
Rap1A	eqilrvkdtedvpmilv-----NKCDledervvgkeggqn	133
Rap2A	dqilrvkryekvpvlv-----NKVDleserevsssegra	133
HRas	eqikrvkdsddvpmvlv-----NKCDlaartvesrqaqdl	133
RRas	tqilrvkdrddfpvvlv-----NKADlesqrqvprseasa	159
Rheb	gklldmvgkvqipimlv-----NKKDlhmervisyeegka	136
Rig	aqewkcaf-----ETSAkmnynvkelfqelltletrrnmslnidg	179
Noey2	amewncaf-----EISaktdvnvgelfhmllynkkkpttqlgepe	210
RalA	raeqwnvnyv-----ETSAktranvdkvffdlmreirarkmedskek	186
Rap1A	larqwcncaf-----ESSAkskinvneifydlvrqinrktpvekkkp	176
Rap2A	laeewgcpfm-----ETSAksktmvdelfaeivrqmnyaaqpdkddp	175
HRas	arsygipyi-----ETSAktrqgvedafytlvreirqhklrklnp	174
RRas	fgashhvayf-----EASaklrlnvdeafeqlvravrkyqegelp	201
Rheb	laeswnaaf-----ESSAkenqtavdvfrriileakmdgaasqgk	178
Rig	krsgkqkrtdrvkgk-----//----CTLM	198
Noey2	kksqmpntteklldk-----//----CIIM	229
RalA	ngkkkrkslakrirer-----//----CCIL	206
Rap1A	kkks-----//----CLLL	184
Rap2A	ccsa-----//----CNIQ	183
HRas	desgpgcmsck-----//----CVLS	189
RRas	ppsaprkkgggcp-----//----CVLL	218
Rheb	ss-----//----CSVM	184

Figure 3

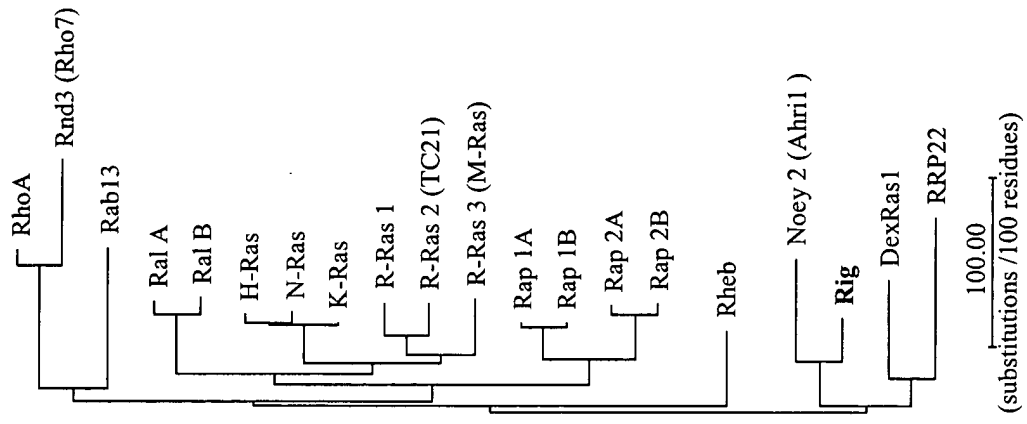
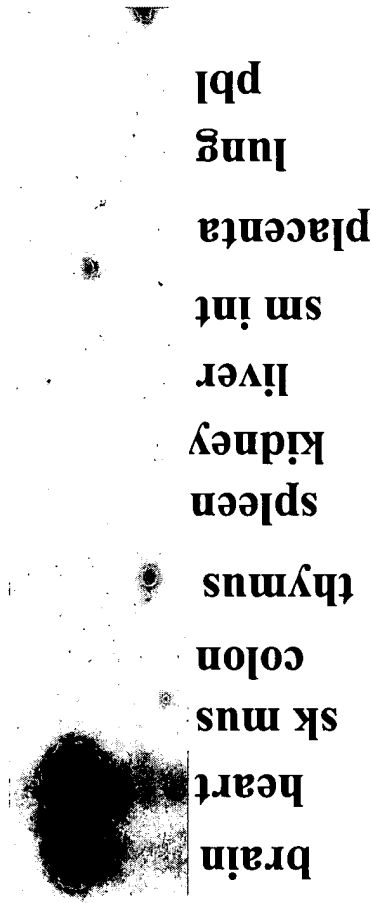


Figure 4

(A)



(B)



(C)

	1	2	3	4	5	6	7	8	9	10	11	12
A	whole brain	cerebellum, left	cerebellum, right	nucleus accumbens	atrium, left	atrium, right	ventricle, left	ventricle, right	inter-ventricular septum	apex of the heart	colon, ascending	trachea
B	cerebral cortex	frontal lobe	parietal lobe	occipital lobe	temporal lobe	p.g.* of cerebral cortex	cerebellum, left	cerebellum, right	substantia nigra	heart	esophagus	colon, transverse
C	kidney	placenta	lung	pbl								
D	leukemia, HL-60	HeLa S3	leukemia, K-562	leukemia, MOLT-4	Burkitt's lymphoma, Raji	Burkitt's lymphoma, Daudi	colorectal adenocarcinoma, SW680	lung carcinoma, A549	fetal brain	fetal heart	fetal kidney	fetal liver
E	poly (A)	human Cα-1 DNA	human DNA 100 ng	human DNA 500 ng								

* paracentral gyrus

LSHS

A673

TC106

TC32

U251

Figure 6

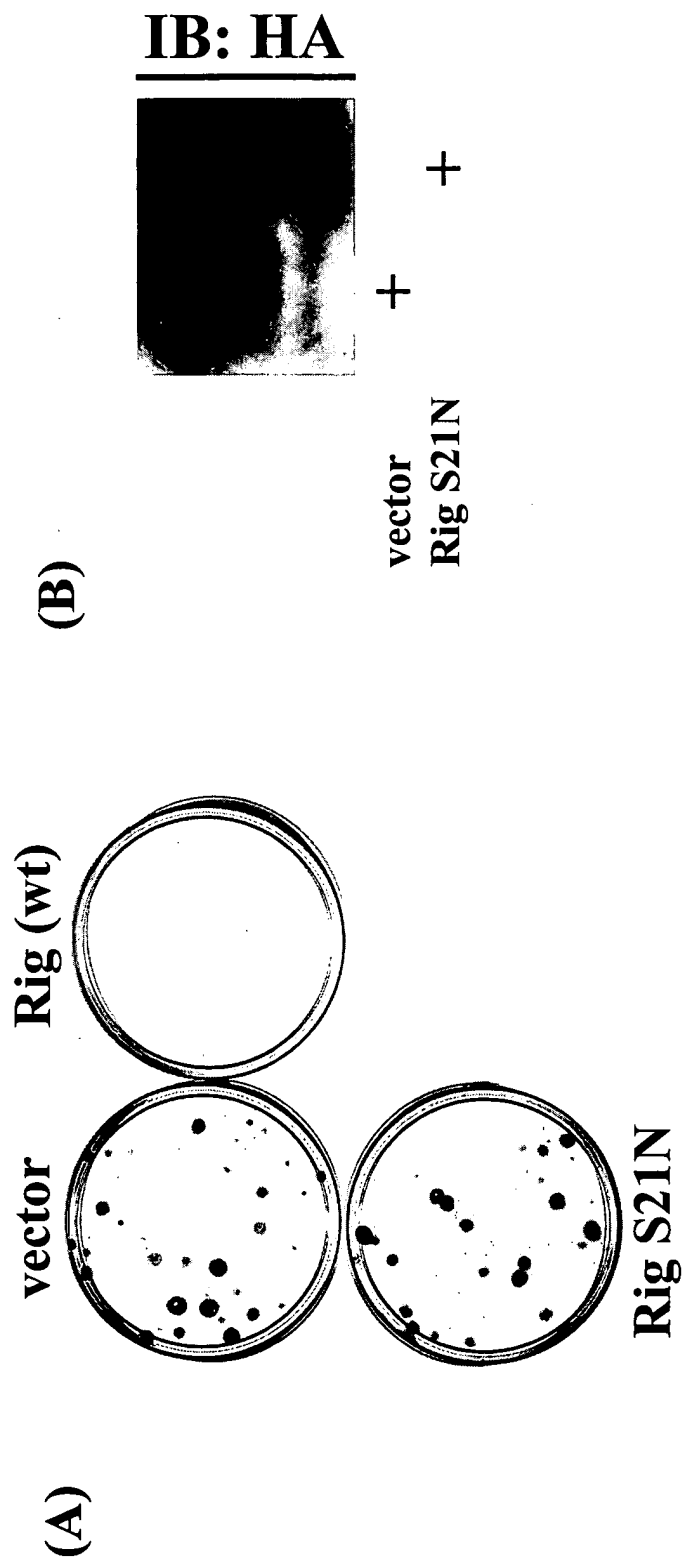


Figure 7

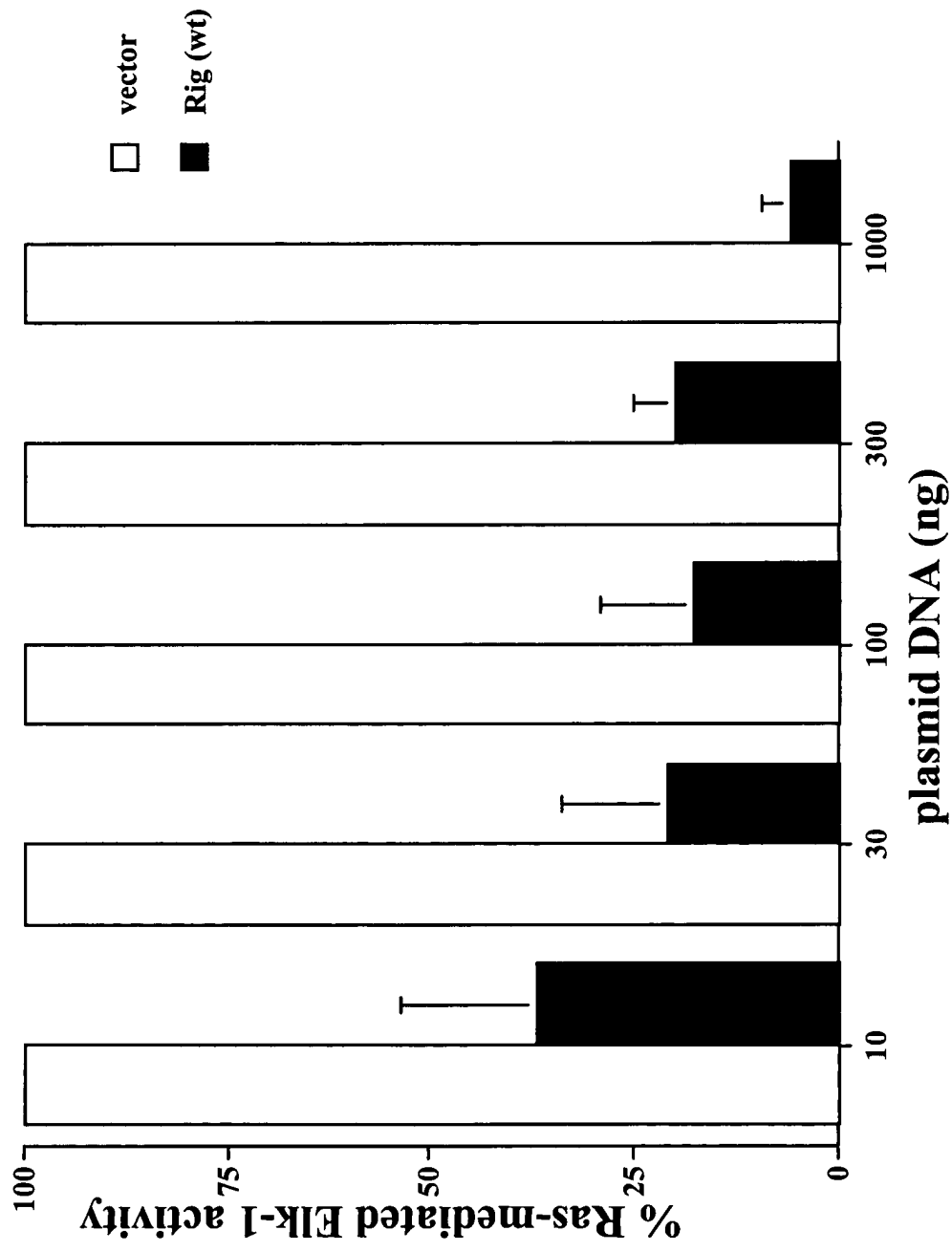


Figure 8

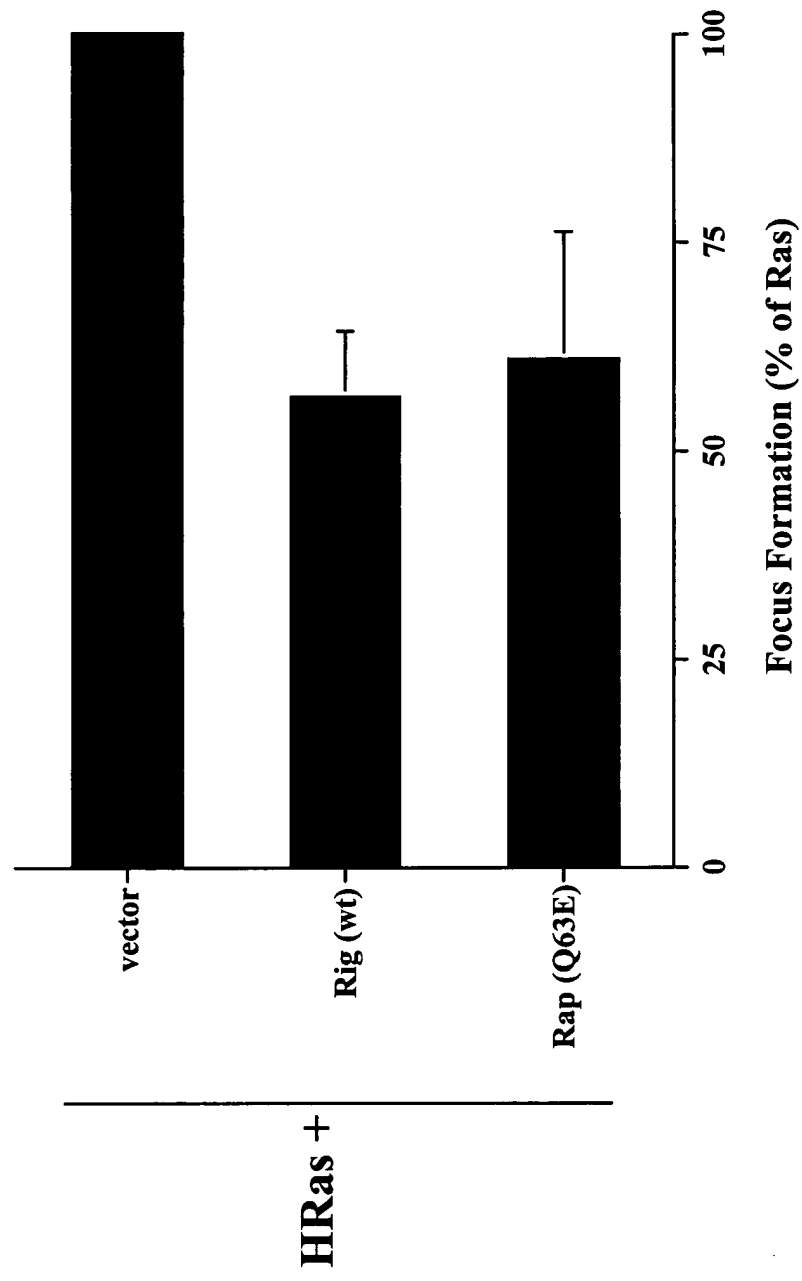


Figure 9

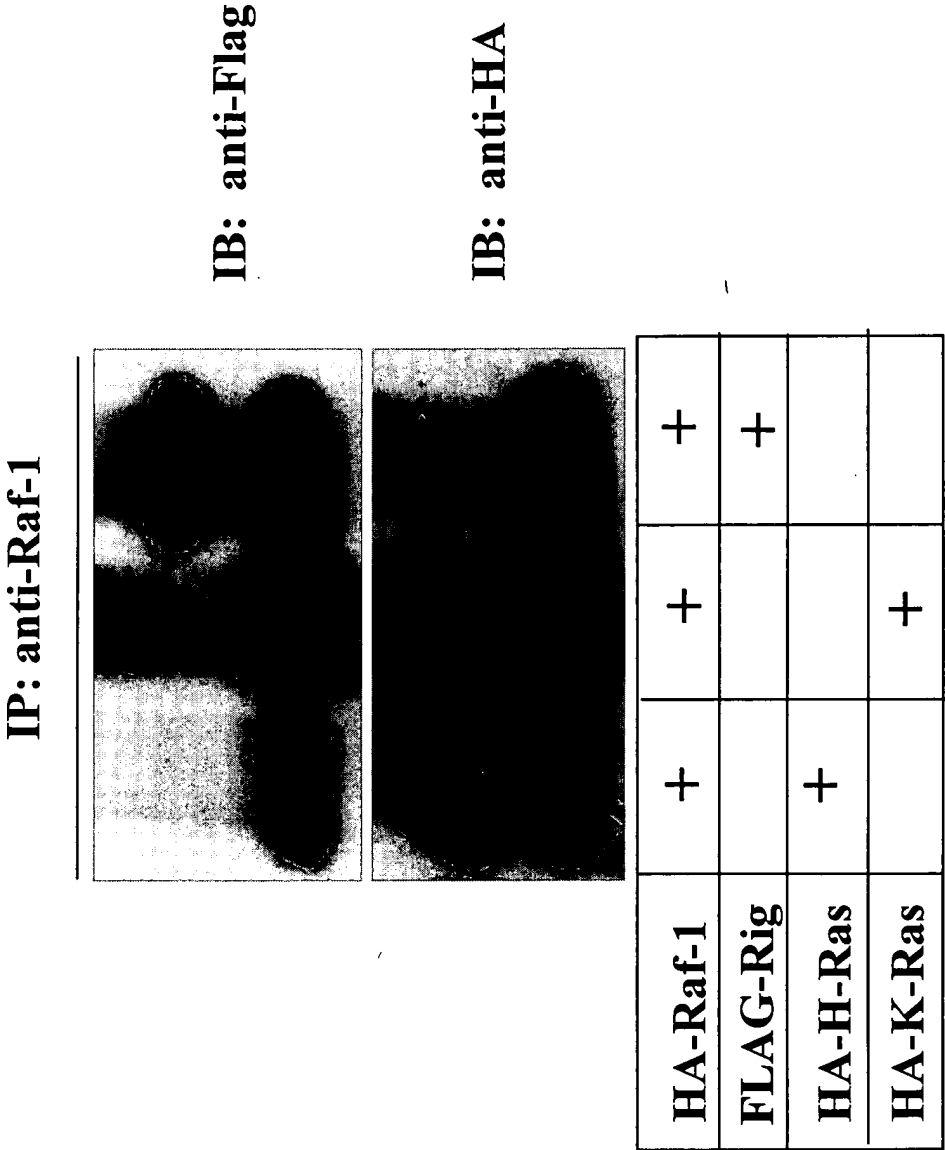
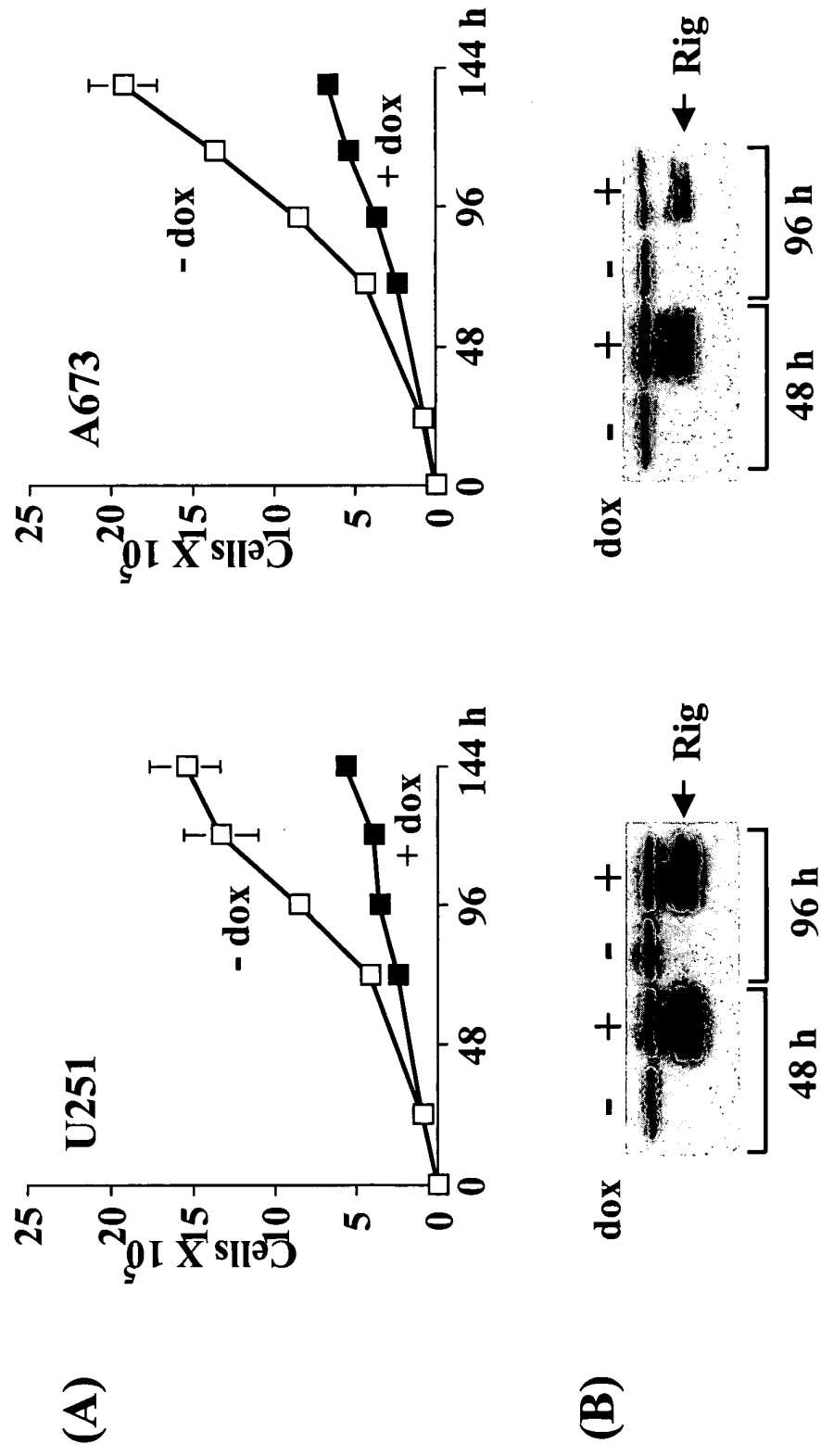


Figure 10



[illegible]

Figure 11

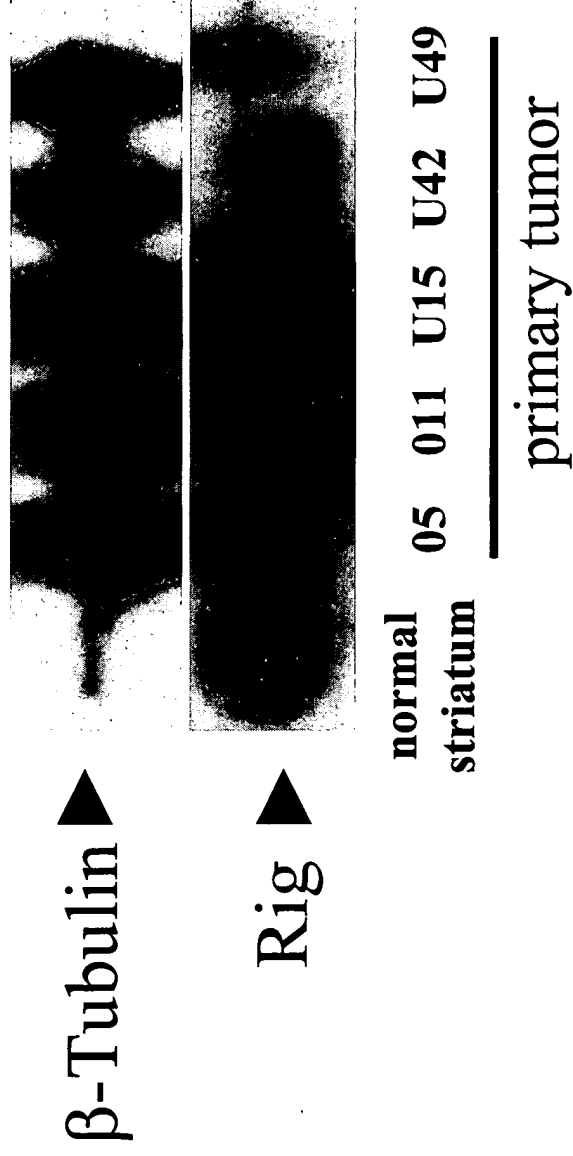


Figure 12

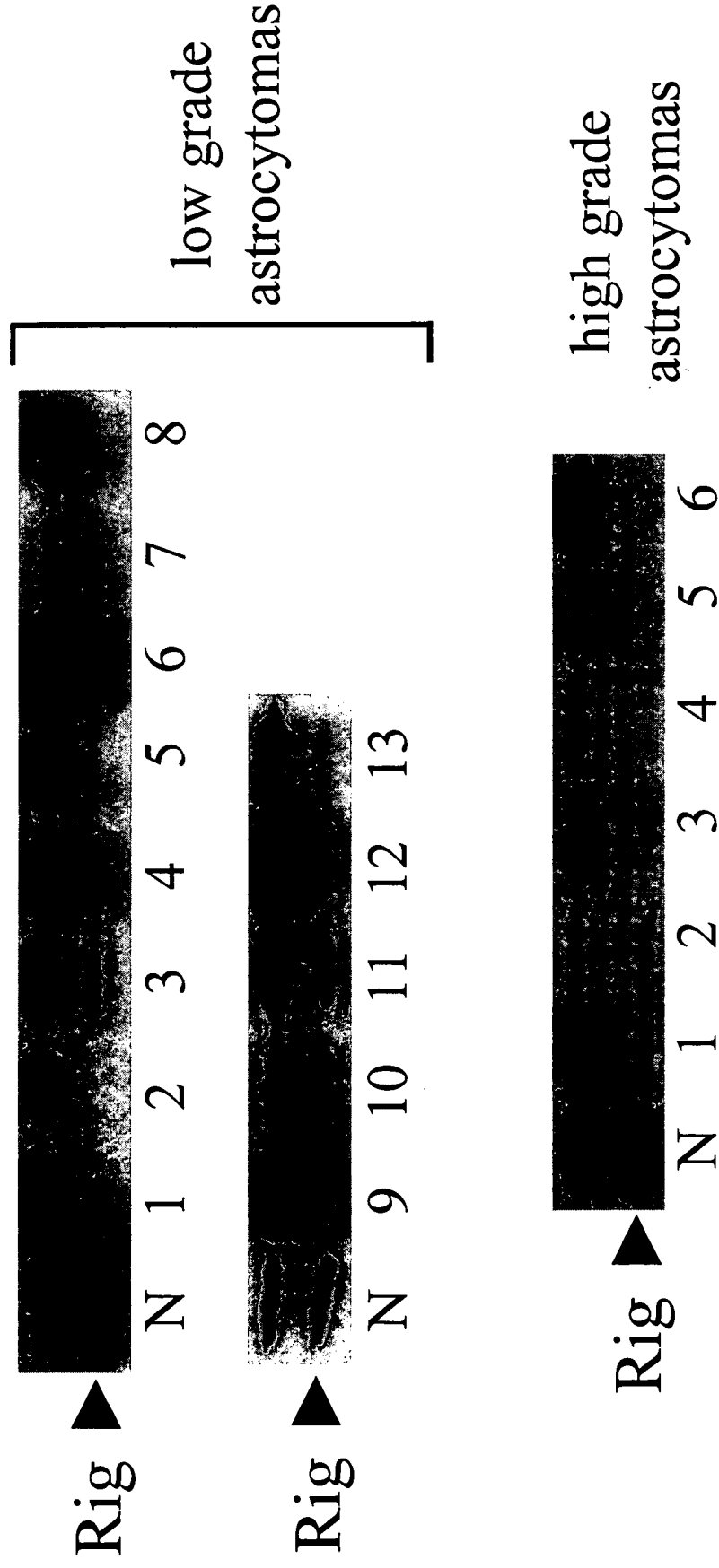


Figure 14

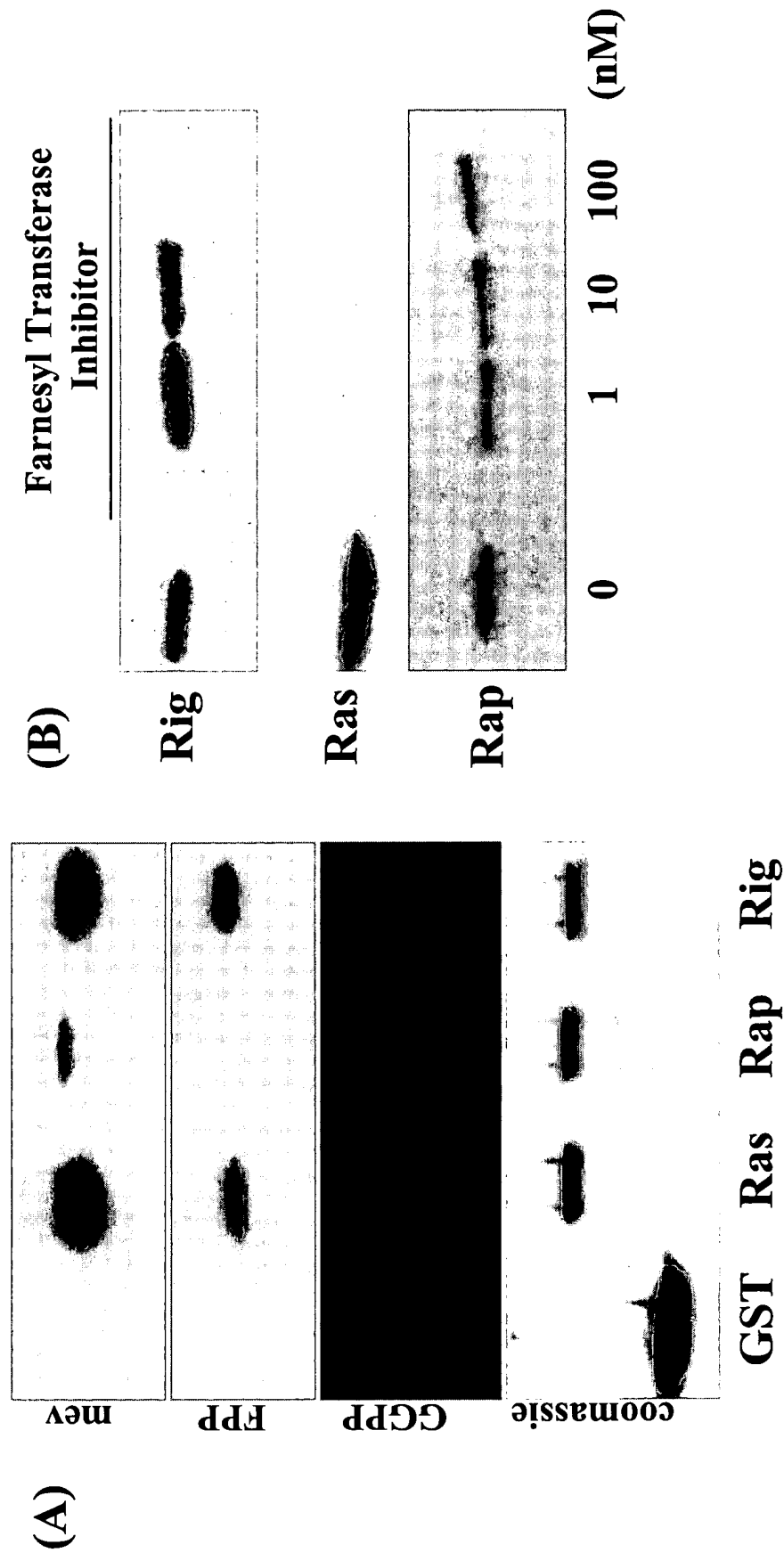


Figure 15

